

CLAIMS

That which is claimed is:

1. An aneurysm embolization device for use in occluding the flow of blood at a preselected position within a vessel, said embolization device comprising:

5 a headpiece having a proximal section and a distal section;

a central connecting member which takes the form of a flexible fiber, said connecting member having a proximal end and a distal end, the proximal end of said connecting member being attached to the distal section of said headpiece; and,

10 a spherical member which takes the form of a small diameter ball, said spherical member being attached to the distal end of said central connecting member.

2. An aneurysm embolization device as defined in claim 1, wherein said spherical member is formed from a polymer.

15 3. An aneurysm embolization device as defined in claim 1, wherein said headpiece and said spherical member is formed from a metallic material.

4. An aneurysm embolization device as defined in claim 1, wherein said central connecting member takes the form of a shape memory wire such that, after said
20 aneurysm embolization device is deployed at the preselected position within the vessel said central connecting member tends to assume a predetermined configuration.

5. An aneurysm embolization device as defined in claim 1, wherein said central connecting member takes the form of a stretchable fiber.

6. An aneurysm embolization device as defined in claim 1, wherein said spherical member includes a plurality of flexible filaments extending outwardly from said spherical member in order to enhance the occlusive effect of said spherical member.

7. An aneurysm embolization device as defined in claim 1, wherein said spherical member includes a time-released adhesive coating on the periphery of said spherical member in order to enhance the occlusive effect of said spherical member.

8. An aneurysm embolization device as defined in claim 1, wherein said aneurysm embolization includes a plurality of spherical members and a plurality of flexible filaments coupling each of said spherical members to an adjacent spherical member.

9. A method for placing an aneurysm embolization device at a pre-selected position within a vessel, the method comprising the steps of:

providing a deployment catheter having a small diameter lumen extending therethrough and being formed of a material which is sufficiently flexible to pass through the vessels of the body, providing an aneurysm embolization device including a headpiece coupled to the distal end of the said deployment catheter; the embolization device includes a central connecting member which takes the form of a flexible fiber,

and is attached to the headpiece, and the embolization device includes a spherical member which takes the form of a small spherical ball which is attached to the central connecting member;

introducing said deployment catheter with said aneurysm embolization device
5 into a vessel and positioning said aneurysm embolization device at a pre-selected position within the vessel; and,

releasing said aneurysm embolization device at the preselected site with the vessel.